

REMARKS/ARGUMENTS

Claims 2-7 and 55-57 have been rejected as anticipated by JP10-116805. Claims 9, 10, 47-48, 50-53 and 58 have been rejected as obvious over JP'805 in view of Wen. Claims 11 and 54 have been rejected over JP'805, Wen and Matsukawa et al.

Reconsideration of claims 4, 9, 47, 48, 50-55 and 59-61 is requested.

Claim 4 is being amended so that it now depends from claim 9. This amendment merely simplifies the application and does not affect the scope of claim 4. Claims 2, 3, 5-7, 10, 11 and 57 which depend from claim 4 are being canceled.

Claims 58 and 56 are being canceled and combined with their respective parent claims 9 and 55.

An error has been noticed in the claims. As shown in Fig. 7, for example, an atmosphere blocking member has a radius r which is smaller than a radius R of a substrate S by at least a radial width W_{nt} of a notch N at a periphery edge of the substrate. See page 25, line 17 - page 26, line 11 and page 26, line 23 - page 27, line 6.

Thus, independent claims 9 and 55 and new claim 59 now recite

said atmosphere blocking member has a radius ~~diameter~~ which is smaller than a radius ~~diameter~~ of said substrate by at least a radial width of a notch at a periphery edge of said substrate, and

These amendments to claims 9 and 55 merely clarify the claims to conform to the specification and do not narrow the scope of the claims.

More particularly, independent claims 9, 55 and 59 now recite a processing apparatus for processing a substrate with a liquid, the apparatus having an atmosphere blocking member; the

atmosphere blocking member has a radius which is smaller than a radius of the substrate by at least a radial width of a notch at a periphery edge of the substrate; in combination with a substrate having the said peripheral notch. See page 25, lines 8-15. The invention described in JP '805 (JP10-116805) does not have these features. The substrate in JP '805 does not have a notch; and therefore, obviously, the processing apparatus in JP '805 cannot have the recited interaction (size and position relationship) with any notch of any substrate.

By adopting the claimed structures, the following advantageous effects, which are never suggested in the cited references, can be achieved. Specifically, since the atmosphere blocking member has a radius which is smaller than the radius of the substrate by the width of the notch at the peripheral edge of the substrate, the peripheral edge area of the atmosphere blocking member is not exposed to a mist-splashed atmosphere around the substrate through the notch at the peripheral edge of the substrate. Consequently, the mist created during the substitute processing can be prevented from being kicked back by the peripheral edge of the atmosphere blocking member and toward the other major surface of the substrate. See page 26, lines 12-22.

New claims 60-61 recite this advantageous cooperation of the atmosphere blocking member and the substrate.

Thus, in the claimed arrangements, since the atmosphere blocking member has a radius that is smaller than the radius of the substrate by at least the radial width of the notch at the peripheral edge of the substrate, the mist created during the substrate processing can be securely prevented from reaching and adhering to the other major surface of the substrate.

There is no suggestion in JP '805 regarding a substrate having a notch in its edge, nor an apparatus wherein an atmosphere blocking member has a radius which is smaller than the radius

of a substrate by the width of any notch at the peripheral edge of any substrate.

Wen (U.S. Patent No. 6,239,038) merely discloses beveled fingers (42) which adjustably support a substrate depending on a size of the substrate. It neither describes nor suggests an apparatus wherein an atmosphere blocking member has a radius that is smaller than the radius of a substrate by the width of any notch at a peripheral edge of any substrate.

Therefore, the claimed structure, combining the processing apparatus, the atmosphere blocking member and the notched substrate, is neither anticipated nor suggested by the cited references. Allowance of claims 4, 9, 47, 48, 50-55 and 59-61 is therefore requested.

The Examiner made reference to Ex Parte Masham, 2 U.S.P.Q. 2d 1647 (B.P.A.I. 1987); Ex Parte Thibault, 164 U.S. P.Q. 666 (Bd. App. 1969); In re Young, 25 U.S.P.Q. 69 (CCPA 1935); and In re Otto, 136 U.S.P.Q. 458 (CCPA 1963). These cases dealt with claims to processing equipment that also recited a workpiece or a material worked upon. The court in each case observed that the claimed processing equipment was anticipated or obvious in view of prior art processing equipment, and that the recitation of a specific workpiece or material was merely a statement of intended use, since the workpiece or material did not require any additional features that were not already in the prior art processing equipment.

These cases are inapplicable to the present claims, which recite a workpiece having a specific structure, physically combined with a processing apparatus also having a specific structure. The claimed combination of structures is not seen in the prior art of record.

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